

# Minnesota Native Plant Classification Systems, Classes, Types, and Subtypes

January 2005

Class Code    Class Name  
Type Code    Type Name  
Subtype Code    Subtype Name

## Upland Forests and Woodlands

### Fire-Dependent Forest/Woodland System

**FDn12    Northern Dry-Sand Pine Woodland**

- FDn12a    Jack Pine Woodland (Sand)
- FDn12b    Red Pine Woodland (Sand)

**FDn22    Northern Dry-Bedrock Pine (Oak) Woodland**

- FDn22a    Jack Pine Woodland (Bedrock)
- FDn22b    Red Pine - White Pine Woodland (Northeastern Bedrock)
- FDn22c    Pin Oak Woodland (Bedrock)
- FDn22d    Red Pine - White Pine Woodland (Eastcentral Bedrock)

**FDn32    Northern Poor Dry-Mesic Mixed Woodland**

- FDn32a    Red Pine - White Pine Woodland (Canadian Shield)
- FDn32b    Red Pine - White Pine Woodland (Minnesota Point)
- FDn32c    Black Spruce - Jack Pine Woodland
- FDn32c1    *Jack Pine - Balsam Fir Subtype*
- FDn32c2    *Black Spruce - Feathermoss Subtype*
- FDn32c3    *Jack Pine - Black Spruce - Aspen Subtype*
- FDn32d    Jack Pine - Black Spruce Woodland (Sand)
- FDn32e    Spruce - Fir Woodland (North Shore)

**FDn33    Northern Dry-Mesic Mixed Woodland**

- FDn33a    Red Pine - White Pine Woodland
- FDn33a1    *Balsam Fir Subtype*
- FDn33a2    *Mountain Maple Subtype*
- FDn33b    Aspen - Birch Woodland
- FDn33c    Black Spruce Woodland

**FDn43    Northern Mesic Mixed Forest**

- FDn43a    White Pine - Red Pine Forest
- FDn43b    Aspen - Birch Forest
- FDn43b1    *Balsam Fir Subtype*
- FDn43b2    *Hardwood Subtype*
- FDn43c    Upland White Cedar Forest

**FDc12    Central Poor Dry Pine Woodland**

- FDc12a    Jack Pine - (Bearberry) Woodland

**FDc23    Central Dry Pine Woodland**

- FDc23a    Jack Pine - (Yarrow) Woodland
- FDc23a1    *Ericaceous Shrub Subtype*
- FDc23a2    *Bur Oak - Aspen Subtype*

**FDc24    Central Rich Dry Pine Woodland**

- FDc24a    Jack Pine - (Bush Honeysuckle) Woodland
- FDc24a1    *Bracken Subtype*
- FDc24a2    *Bur Oak - Carrion-Flower Subtype*

**FDc25    Central Dry Oak-Aspen (Pine) Woodland**

- FDc25a    Jack Pine - Oak Woodland
- FDc25b    Oak - Aspen Woodland

**FDc34    Central Dry-Mesic Pine-Hardwood Forest**

- FDc34a    Red Pine - White Pine Forest
- FDc34b    Oak - Aspen Forest

**FDs27    Southern Dry-Mesic Pine-Oak Woodland**

- FDs27a    Jack Pine - Oak Woodland (Sand)
- FDs27b    White Pine - Oak Woodland (Sand)
- FDs27c    Black Oak - White Oak Woodland (Sand)

**FDs36    Southern Dry-Mesic Oak-Aspen Forest**

- FDs36a    Bur Oak - Aspen Forest

**FDs37    Southern Dry-Mesic Oak (Maple) Woodland**

- FDs37a    Oak - (Red Maple) Woodland
- FDs37b    Pin Oak - Bur Oak Woodland

**FDs38    Southern Dry-Mesic Oak-Hickory Woodland**

- FDs38a    Oak - Shagbark Hickory Woodland

**FDw24    Northwestern Dry-Mesic Oak Woodland**

- FDw24a    Bur Oak - (Prairie Herb) Woodland
- FDw24b    Bur Oak - (Forest Herb) Woodland

**FDw34    Northwestern Mesic Aspen-Oak Woodland**

- FDw34a    Aspen - (Prairie Herb) Woodland
- FDw34b    Aspen - (Beaked Hazel) Woodland

**FDw44    Northwestern Wet-Mesic Aspen Woodland**

- FDw44a    Aspen - (Cordgrass) Woodland
- FDw44b    Aspen - (Chokecherry) Woodland

### Mesic Hardwood Forest System

**MHn35    Northern Mesic Hardwood Forest**

- MHn35a    Aspen - Birch - Basswood Forest
- MHn35b    Red Oak - Sugar Maple - Basswood - (Bluebead Lily) Forest

**MHn44    Northern Wet-Mesic Boreal Hardwood-Conifer Forest**

- MHn44a    Aspen - Birch - Red Maple Forest
- MHn44b    White Pine - White Spruce - Paper Birch Forest
- MHn44c    Aspen - Fir Forest
- MHn44d    Aspen - Birch - Fir Forest

**MHn45    Northern Mesic Hardwood (Cedar) Forest**

- MHn45a    Paper Birch - Sugar Maple Forest (North Shore)
- MHn45b    White Cedar - Yellow Birch Forest
- MHn45c    Sugar Maple Forest (North Shore)

**MHn46    Northern Wet-Mesic Hardwood Forest**

- MHn46a    Aspen - Ash Forest
- MHn46b    Black Ash - Basswood Forest

**MHn47    Northern Rich Mesic Hardwood Forest**

- MHn47a    Sugar Maple - Basswood - (Bluebead Lily) Forest
- MHn47b    Sugar Maple - Basswood - (Horsetail) Forest

**MHc26    Central Dry-Mesic Oak-Aspen Forest**

- MHc26a    Oak - Aspen - Red Maple Forest
- MHc26b    Red Oak - Sugar Maple - Basswood - (Large-Flowered Trillium) Forest

**MHc36    Central Mesic Hardwood Forest (Eastern)**

- MHc36a    Red Oak - Basswood Forest (Noncalcareous Till)
- MHc36b    Red Oak - Basswood Forest (Calcareous Till)

**MHc37    Central Mesic Hardwood Forest (Western)**

- MHc37a    Aspen - (Sugar Maple - Basswood) Forest
- MHc37b    Sugar Maple - Basswood - (Aspen) Forest

**MHc38    Central Mesic Cold-Slope Hardwood-Conifer Forest**

- MHc38a    White Pine - Sugar Maple - Basswood Forest (Cold Slope)

**MHc47    Central Wet-Mesic Hardwood Forest**

- MHc47a    Basswood - Black Ash Forest

**MHs37    Southern Dry-Mesic Oak Forest**

- MHs37a    Red Oak - White Oak Forest
- MHs37b    Red Oak - White Oak - (Sugar Maple) Forest

**MHs38    Southern Mesic Oak-Basswood Forest**

- MHs38a    White Pine - Oak - Sugar Maple Forest
- MHs38b    Basswood - Bur Oak - (Green Ash) Forest
- MHs38c    Red Oak - Sugar Maple - Basswood - (Bitternut Hickory) Forest

**MHs39    Southern Mesic Maple-Basswood Forest**

- MHs39a    Sugar Maple - Basswood - (Bitternut Hickory) Forest
- MHs39b    Sugar Maple - Basswood - Red Oak - (Blue Beech) Forest
- MHs39c    Sugar Maple Forest (Big Woods)

**MHs49    Southern Wet-Mesic Hardwood Forest**

- MHs49a    Elm - Basswood - Black Ash - (Hackberry) Forest
- MHs49b    Elm - Basswood - Black Ash - (Blue Beech) Forest

**MHw36    Northwestern Wet-Mesic Hardwood Forest**

- MHw36a    Green Ash - Bur Oak - Elm Forest

## Wetland Forests

### Floodplain Forest System

<b>FFn57 Northern Terrace Forest</b>	<b>FFs59 Southern Terrace Forest</b>
FFn57a Black Ash - Silver Maple Terrace Forest	FFs59a Silver Maple - Green Ash - Cottonwood Terrace Forest
<b>FFn67 Northern Floodplain Forest</b>	FFs59b Swamp White Oak Terrace Forest
FFn67a Silver Maple - (Sensitive Fern) Floodplain Forest	FFs59c Elm - Ash - Basswood Terrace Forest
	<b>FFs68 Southern Floodplain Forest</b>
	FFs68a Silver Maple - (Virginia Creeper) Floodplain Forest

### Wet Forest System

<b>WFn53 Northern Wet Cedar Forest</b>	<b>WFs55 Southern Wet Aspen Forest</b>
WFn53a Lowland White Cedar Forest (North Shore)	WFs55a Lowland Aspen Forest
WFn53b Lowland White Cedar Forest (Northern)	<b>WFs57 Southern Wet Ash Swamp</b>
<b>WFn55 Northern Wet Ash Swamp</b>	WFs57a Black Ash - (Red Maple) Seepage Swamp
WFn55a Black Ash - Aspen - Balsam Poplar Swamp (Northeastern)	WFs57b Black Ash - Sugar Maple - Basswood - (Blue Beech) Seepage Swamp
WFn55b Black Ash - Yellow Birch - Red Maple - Basswood Swamp (Eastcentral)	
WFn55c Black Ash - Mountain Maple Swamp (Northern)	<b>WFW54 Northwestern Wet Aspen Forest</b>
<b>WFn64 Northern Very Wet Ash Swamp</b>	WFW54a Lowland Black Ash - Aspen - Balsam Poplar Forest
WFn64a Black Ash - Conifer Swamp (Northeastern)	
WFn64b Black Ash - Yellow Birch - Red Maple - Alder Swamp (Eastcentral)	
WFn64c Black Ash - Alder Swamp (Northern)	

### Forested Rich Peatland System

<b>FPn62 Northern Rich Spruce Swamp (Basin)</b>	<b>FPn82 Northern Rich Tamarack Swamp (Western Basin)</b>
FPn62a Rich Black Spruce Swamp (Basin)	FPn82a Rich Tamarack - (Alder) Swamp
<b>FPn63 Northern Cedar Swamp</b>	FPn82b Extremely Rich Tamarack Swamp
FPn63a White Cedar Swamp (Northeastern)	
FPn63b White Cedar Swamp (Northcentral)	<b>FPs63 Southern Rich Conifer Swamp</b>
FPn63c White Cedar Swamp (Northwestern)	FPs63a Tamarack Swamp (Southern)
<b>FPn71 Northern Rich Spruce Swamp (Water Track)</b>	<b>FPw63 Northwestern Rich Conifer Swamp</b>
FPn71a Rich Black Spruce Swamp (Water Track)	FPw63a Tamarack - Black Spruce Swamp (Aspen Parkland)
<b>FPn72 Northern Rich Tamarack Swamp (Eastern Basin)</b>	FPw63b Tamarack Seepage Swamp (Aspen Parkland)
FPn72a Rich Tamarack Swamp (Eastcentral)	
<b>FPn81 Northern Rich Tamarack Swamp (Water Track)</b>	
FPn81a Rich Tamarack (Sundew - Pitcher Plant) Swamp	

### Acid Peatland System

<b>APn80 Northern Spruce Bog</b>	<b>APn81 Northern Poor Conifer Swamp</b>
APn80a Black Spruce Bog	APn81a Poor Black Spruce Swamp
APn80a1 <i>Treed Subtype</i>	APn81b Poor Tamarack - Black Spruce Swamp
APn80a2 <i>Semi-Treed Subtype</i>	APn81b1 <i>Black Spruce Subtype</i>
	APn81b2 <i>Tamarack Subtype</i>

## Upland Grasslands, Shrublands, and Sparse Vegetation

### Cliff/Talus System

<b>CTn11 Northern Dry Cliff</b>	<b>CTu22 Lake Superior Cliff</b>
CTn11a Dry Mafic Cliff (Northern)	CTu22a Exposed Mafic Cliff (Lake Superior)
CTn11b Dry Rove Cliff (Northern)	CTu22b Exposed Felsic Cliff (Lake Superior)
CTn11c Dry Thomson Cliff (Northern)	CTu22c Sheltered Mafic Cliff (Lake Superior)
CTn11d Dry Felsic Cliff (Northern)	
CTn11e Dry Sandstone Cliff (Northern)	<b>CTs12 Southern Dry Cliff</b>
<b>CTn12 Northern Open Talus</b>	CTs12a Dry Sandstone Cliff (Southern)
CTn12a Dry Open Talus (Northern)	CTs12b Dry Limestone - Dolomite Cliff (Southern)
CTn12b Mesic Open Talus (Northern)	CTs12c Dry Sioux Quartzite Cliff (Southern)
<b>CTn24 Northern Scrub Talus</b>	<b>CTs23 Southern Open Talus</b>
CTn24a Dry Scrub Talus (Northern)	CTs23a Dry Limestone - Dolomite Talus (Southern)
CTn24b Mesic Scrub Talus (Northern)	CTs23b Mesic Limestone - Dolomite Talus (Southern)
<b>CTn32 Northern Mesic Cliff</b>	<b>CTs33 Southern Mesic Cliff</b>
CTn32a Mesic Mafic Cliff (Northern)	CTs33a Mesic Sandstone Cliff (Southern)
CTn32b Mesic Rove Cliff (Northern)	CTs33b Mesic Limestone - Dolomite Cliff (Southern)
CTn32c Mesic Thomson Cliff (Northern)	<b>CTs43 Southern Maderate Cliff</b>
CTn32d Mesic Felsic Cliff (Northern)	CTs43a Maderate Cliff
CTn32e Mesic Sandstone Cliff (Northern)	CTs43a1 <i>Limestone Subtype</i>
<b>CTn42 Northern Wet Cliff</b>	CTs43a2 <i>Dolomite Subtype</i>
CTn42a Wet Mafic Cliff (Northern)	<b>CTs46 Southern Algific Talus</b>
CTn42b Wet Rove Cliff (Northern)	CTs46a Algific Talus
CTn42c Wet Felsic Cliff (Northern)	CTs46a1 <i>Limestone Subtype</i>
CTn42d Wet Sandstone Cliff (Northern)	CTs46a2 <i>Dolomite Subtype</i>
	<b>CTs53 Southern Wet Cliff</b>
	CTs53a Wet Sandstone Cliff (Southern)
	CTs53b Wet Limestone - Dolomite Cliff (Southern)

## Upland Grasslands, Shrublands, and Sparse Vegetation (cont.)

### Rock Outcrop System

<b>ROn12 Northern Bedrock Outcrop</b>		<b>ROs12 Southern Bedrock Outcrop</b>	
ROn12a	Sandstone Outcrop (Northern)	ROs12a	Crystalline Bedrock Outcrop (Prairie)
ROn12b	Crystalline Bedrock Outcrop (Northern)	ROs12a1	Minnesota River Subtype
<b>ROn23 Northern Bedrock Shrubland</b>		ROs12a2	Sioux Quartzite Subtype
ROn23a	Bedrock Shrubland (Inland)	ROs12b	Crystalline Bedrock Outcrop (Transition)
ROn23b	Bedrock Shrubland (Lake Superior)	ROs12c	Sedimentary Bedrock Outcrop (Southeast)
		ROs12c1	Sandstone Subtype
		ROs12c2	Limestone-Dolomite Subtype

### Lake Shore System

<b>LKI32 Inland Lake Sand/Gravel/Cobble Shore</b>		<b>LKu32 Lake Superior Sand/Gravel/Cobble Shore</b>	
LKI32a	Sand Beach (Inland Lake)	LKu32a	Beachgrass Dune (Lake Superior)
LKI32b	Gravel/Cobble Beach (Inland Lake)	LKu32b	Juniper Dune Shrubland (Lake Superior)
<b>LKI43 Inland Lake Rocky Shore</b>		LKu32c	Sand Beach (Lake Superior)
LKI43a	Boulder Shore (Inland Lake)	LKu32d	Beach Ridge Shrubland (Lake Superior)
LKI43b	Bedrock Shore (Inland Lake)	LKu32e	Gravel/Cobble Beach (Lake Superior)
<b>LKI54 Inland Lake Clay/Mud Shore</b>		<b>LKu43 Lake Superior Rocky Shore</b>	
LKI54a	Clay/Mud Shore (Inland Lake)	LKu43a	Dry Bedrock Shore (Lake Superior)
LKI54b	Mud Flat (Inland Lake)	LKu43b	Wet Rocky Shore (Lake Superior)
LKI54b1	Saline Subtype	LKu43b1	Cobble Subtype
LKI54b2	Non-Saline Subtype	LKu43b2	Bedrock Subtype

### River Shore System

<b>RVx32 Sand/Gravel/Cobble River Shore</b>		<b>RVx43 Rocky River Shore</b>	
RVx32a	Willow Sandbar Shrubland (River)	RVx43a	Bedrock/Boulder Shore (River)
RVx32b	Sand Beach/Sandbar (River)	RVx43a1	Intermittent Streambed Subtype
RVx32b1	Intermittent Streambed Subtype	RVx43a2	Permanent Stream Subtype
RVx32b2	Permanent Stream Subtype	<b>RVx54 Clay/Mud River Shore</b>	
RVx32c	Gravel/Cobble Beach (River)	RVx54a	Slumping Clay/Mud Slope (River)
RVx32c1	Intermittent Streambed Subtype	RVx54b	Clay/Mud Shore (River)
RVx32c2	Permanent Stream Subtype	RVx54b1	Intermittent Streambed Subtype
		RVx54b2	Permanent Stream Subtype

### Upland Prairie System

<b>UPn12 Northern Dry Prairie</b>		<b>UPs13 Southern Dry Prairie</b>	
UPn12a	Dry Barrens Prairie (Northern)	UPs13a	Dry Barrens Prairie (Southern)
UPn12b	Dry Sand - Gravel Prairie (Northern)	UPs13b	Dry Sand - Gravel Prairie (Southern)
UPn12c	Dry Sand - Gravel Brush-Prairie (Northern)	UPs13c	Dry Bedrock Bluff Prairie (Southern)
UPn12d	Dry Hill Prairie (Northern)	UPs13d	Dry Hill Prairie (Southern)
<b>UPn13 Northern Dry Savanna</b>		<b>UPs14 Southern Dry Savanna</b>	
UPn13a	Dry Barrens Jack Pine Savanna (Northern)	UPs14a	Dry Barrens Oak Savanna (Southern)
UPn13b	Dry Barrens Oak Savanna (Northern)	UPs14a1	Jack Pine Subtype
UPn13c	Dry Sand - Gravel Oak Savanna (Northern)	UPs14a2	Oak Subtype
UPn13d	Dry Hill Oak Savanna (Northern)	UPs14b	Dry Sand - Gravel Oak Savanna (Southern)
<b>UPn23 Northern Mesic Prairie</b>		UPs14c	Dry Hill Oak Savanna (Southern)
UPn23a	Mesic Brush-Prairie (Northern)	<b>UPs23 Southern Mesic Prairie</b>	
UPn23b	Mesic Prairie (Northern)	UPs23a	Mesic Prairie (Southern)
<b>UPn24 Northern Mesic Savanna</b>		<b>UPs24 Southern Mesic Savanna</b>	
UPn24a	Mesic Oak Savanna (Northern)	UPs24a	Mesic Oak Savanna (Southern)
UPn24b	Aspen Openings (Northern)		

# Wetland Grasslands, Shrublands, and Marshes

## Acid Peatland System

<b>APn90 Northern Open Bog</b>	<b>APn91 Northern Poor Fen</b>
APn90a Low Shrub Bog	APn91a Low Shrub Poor Fen
APn90b Graminoid Bog	APn91b Graminoid Poor Fen (Basin)
APn90b1 <i>Typic Subtype</i>	APn91c Graminoid Poor Fen (Water Track)
APn90b2 <i>Schlenke Subtype</i>	APn91c1 <i>Featureless Water Track Subtype</i>
	APn91c2 <i>Flark Subtype</i>

## Open Rich Peatland System

<b>OPn81 Northern Shrub Shore Fen</b>	<b>OPp91 Prairie Rich Fen</b>
OPn81a Bog birch - Alder Shore Fen	OPp91a Rich Fen (Mineral Soil)
OPn81b Leatherleaf - Sweet Gale Shore Fen	OPp91b Rich Fen (Peatland)
<b>OPn91 Northern Rich Fen (Water Track)</b>	OPp91c Rich Fen (Prairie Seepage)
OPn91a Shrub Rich Fen (Water Track)	<b>OPp93 Prairie Extremely Rich Fen</b>
OPn91b Graminoid Rich Fen (Water Track)	OPp93a Calcareous Fen (Northwestern)
OPn91b1 <i>Featureless Water Track Subtype</i>	OPp93b Calcareous Fen (Southwestern)
OPn91b2 <i>Flark Subtype</i>	OPp93c Calcareous Fen (Southeastern)
<b>OPn92 Northern Rich Fen (Basin)</b>	
OPn92a Graminoid Rich Fen (Basin)	
OPn92b Graminoid - Sphagnum Rich Fen (Basin)	
<b>OPn93 Northern Extremely Rich Fen</b>	
OPn93a Spring Fen	

## Wet Forest System W

<b>WFn74 Northern Wet Alder Swamp</b>
WFn74a Alder - (Red Currant - Meadow-Rue) Swamp

## Forested Rich Peatland System

<b>FPn73 Northern Rich Alder Swamp</b>
FPn73a Alder - (Maple - Loosestrife) Swamp

## Wet Meadow/Carr System

<b>WMn82 Northern Wet Meadow/Carr</b>	<b>WMs83 Southern Seepage Meadow/Carr</b>
WMn82a Willow - Dogwood Shrub Swamp	WMs83a Seepage Meadow/Carr
WMn82b Sedge Meadow	WMs83a1 <i>Tussock Sedge Subtype</i>
WMn82b1 <i>Bluejoint Subtype</i>	WMs83a2 <i>Aquatic Sedge Subtype</i>
WMn82b2 <i>Tussock Sedge Subtype</i>	WMs83a3 <i>Impatiens Subtype</i>
WMn82b3 <i>Beaked Sedge Subtype</i>	<b>WMs92 Southern Basin Wet Meadow/Carr</b>
WMn82b4 <i>Lake Sedge Subtype</i>	WMs92a Basin Meadow/Carr
	<b>WMp73 Prairie Wet Meadow/Carr</b>
	WMp73a Prairie Meadow/Carr

## Marsh System

<b>MRn83 Northern Mixed Cattail Marsh</b>	<b>MRp83 Prairie Mixed Cattail Marsh</b>
MRn83a Cattail - Sedge Marsh (Northern)	MRp83a Cattail - Sedge Marsh (Prairie)
MRn83b Cattail Marsh (Northern)	MRp83b Cattail Marsh (Prairie)
<b>MRn93 Northern Bulrush-Spikerush Marsh</b>	<b>MRp93 Prairie Bulrush-Arrowhead Marsh</b>
MRn93a Bulrush Marsh (Northern)	MRp93a Bulrush Marsh (Prairie)
MRn93b Spikerush - Bur Reed Marsh (Northern)	MRp93b Spikerush - Bur Reed Marsh (Prairie)
	MRp93c Arrowhead Marsh (Prairie)
<b>MRu94 Lake Superior Coastal Marsh</b>	
MRu94a Estuary Marsh (Lake Superior)	

## Wetland Prairie System

<b>WPn53 Northern Wet Prairie</b>	<b>WPs54 Southern Wet Prairie</b>
WPn53a Wet Seepage Prairie (Northern)	WPs54a Wet Seepage Prairie (Southern)
WPn53b Wet Brush-Prairie (Northern)	WPs54b Wet Prairie (Southern)
WPn53c Wet Prairie (Northern)	WPs54c Wet Saline Prairie (Southern)
WPn53d Wet Saline Prairie (Northern)	